

**REMARKS**Claim Status

Claims 37-44, 46-59 and 69-72 are pending. Claims 37, 54 and 55 have been amended.

Claim Amendments

Claims 37 and 55 are amended to recite that the permitted values for variable b are 1 and 2.

Claim 54 has been amended to correct obvious typographical errors and to comply with the antecedent basis rules.

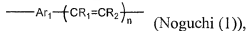
Objection of Claim 54

Claim 54 has been objected to based on informalities. Claim 54 is now amended to correct obvious typographical errors and to comply with the antecedent basis rules. Applicants submit that this amendment addresses the Examiner's objection.

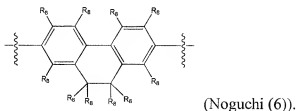
Rejection of Claims 37-44, 49-59 and 69-72 under 35 U.S.C. §103(a)

Claims 37-44, 49-59 and 69-72 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Noguchi *et al.*, EP 1074600 (hereinafter, "Noguchi").

With regard to Claims 37-39 and 55, the Examiner stated<sup>1</sup> that Noguchi teaches a polymer containing at least 10 mol% of units of the following formula:



where the variables are defined on page 2, lines 10-16 of Noguchi. In one embodiment, referred to by the Examiner, Ar<sub>1</sub> of Noguchi can be a tricyclic moiety of formula (Noguchi (6)) (see Noguchi, page 7, lines 30-35):

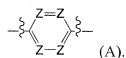


<sup>1</sup> Office Action mailed on June 17, 2009, page 3.

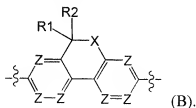
The Examiner asserted<sup>2</sup> that it would have been obvious for one of ordinary skill to select the requisite values of the various variables of formula (Noguchi (1)), including the embodiment of Ar<sub>1</sub> shown in formula (Noguchi (6)), and to modify it in a manner necessary to arrive at the polymer defined by pending claims because it is obvious to choose any of a finite number of possible solutions when there is a reasonable expectation of success.

Applicants amended Claim 37 and submit that, under the established Patent Law, independent Claim 37, as now amended, and the claims dependent thereon are non-obvious over Noguchi.

The repeat unit defined by Claim 37, as amended, includes at least two six-member aromatic moieties of the following structural formula:



The moieties of formula (A) are attached either directly (when a=0) or indirectly (when a=1) to the central tricyclic moiety of the following formula:



In other words, Claim 37, as amended, requires that both a moiety of formula (B) and *at least two moieties* of formula (A) be present according to Applicants' formula (I) (see Claim 37).

In contrast, Noguchi fails to teach or suggest that a tricyclic moiety of formula (Noguchi (6)) be modified by *at least two six-member aromatic moieties*. Indeed, the only example of Noguchi that employs the moiety of (Noguchi (6)), Example 8, formula (28), fails to teach or suggest the requisite modification of this moiety. Nor is such a modification taught or suggested anywhere else in the disclosure of Noguchi.

It is well established in Patent Law that it is improper to assume that different chemical structures would have the same properties, absent a teaching of equivalency in the prior art:

<sup>2</sup> Office Action of June 17, 2009, page 3, last paragraph.

Upon review of this history, we have concluded that generalization should be avoided insofar as specific chemical structures are alleged to be *prima facie* one from the other. [...] [I]n the case before us there must be adequate support in the prior art for the ester/thioester change in structure in order to complete the PTO's *prima facie* case and shift the burden of going forward to the applicant. (*In re Grabiak*, 226 USPQ 870 at 872 (CAFC 1985).)(*Emphasis added*.)

The Examiner is further reminded of a recent decision by the U.S. Court of Appeals for the Federal Circuit, *Takeda Chemical v. Alphapharm*, 492 F.3d 1350, 83 U.S.P.Q.2D 1169 (C.A.F.C. 2007). The court of *Takeda* confirmed a well-established principle of "chemical obviousness":

[...] in order to find a *prima facie* case of unpatentability in such instances, a showing that the "prior art would have suggested making the specific molecular modifications necessary to achieve the claimed invention" was also required. *Id.* (citing *In re Jones*, 958 F.2d 347 (Fed. Cir. 1992); *Dillon*, 919 F.2d 688; *Grabiak*, 769 F.2d 729; *In re Lulu*, 747 F.2d 703 (Fed. Cir. 1984). *Emphasis added.*)<sup>3</sup>

Applying *In Re Grabiak* and *Takeda* to the facts of the present case, in order to suggest modifying the moiety of structural formula (Noguchi (6)) with *at least two six-member aromatic moieties*, as now required by Claim 37, as amended, there must be appropriate support in the cited art for such a modification. Nothing in Noguchi directs one of ordinary skill in the art to such a modification. There is neither an example nor a suggestion in Noguchi or any other reference of record to modify the repeat units of Noguchi in a manner necessary to arrive at the invention defined in Claim 37, as amended. Absent teachings or reasons to modify the moiety of (Noguchi (6)), one of ordinary skill in the art would not have arrived at the polymer of amended Claim 37.

In view of the above, Claim 37, as amended, and Claims 38-44, 49-59 and 69-72, dependent thereon are non-obvious over Noguchi. Reconsideration and withdrawal of the rejection are respectfully requested.

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<sup>3</sup> Applicants further note that the C.A.F.C. opinion in *Takeda* was issued after the decision by the Supreme Court in *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007).

Rejection of Claims 46-48 under 35 U.S.C. §103(a)

Claims 46-48 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Noguchi, as applied to Claim 37, and further in view of Baldo *et al.*, Appl. Phys. Lett., 75(1) (1999) ("Baldo").

As noted above, Noguchi does not disclose the repeat unit defined by Claim 37, as amended. Without going into further merits of Baldo, Applicants note that Baldo does not overcome the deficiency of Noguchi because Baldo does not teach or suggest modifying the repeat unit of Noguchi in a manner necessary to arrive at the repeat unit recited in Claim 37, as amended.

In view of the above, Claims 46-48 are non-obvious over Noguchi, in the view of Baldo. Reconsideration and withdrawal of the rejection are respectfully requested.

**CONCLUSION**

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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Date: 9/17/09